



**pennsylvania**  
DEPARTMENT OF AGRICULTURE

May 14th, 2019

Ms. Tawanda Maignan, Section 18 Team Leader  
Environmental Protection Agency  
Office of Pesticide Programs  
Risk Integration Minor Use,  
and Emergency Response Branch (7505P)  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington, Virginia 22202

Re: Regional Section 18 Request for Control of Brown Marmorated Stink bug (BMSB) –  
Recertification of 18-PA-04, 18-PA-05 and 18-PA-06 and final report

Dear Ms. Maignan,

On behalf of Tree Fruit (Pome & Stone) Growers in the Commonwealth of Pennsylvania, and the Pennsylvania State University (PSU), the Pennsylvania Department of Agriculture (PDA) is requesting recertification of our emergency exemption (year 8) a regional specific emergency exemption request to allow Mid-Atlantic growers to use Bifenthrin to control BMSB in tree fruit, as requested by the Maryland Department of Agriculture and Dr. Bryan R. Butler Sr., University of Maryland.

This action is taken pursuant to Title 40 CFR, § 166.20(b)(5).

PDA will, under the authority of the Pennsylvania Pesticide Control Act, and FIFRA, ensure that the use of this pesticide under this exemption is in compliance with all requirements specified by EPA in approving this request.

Submitted by,

A handwritten signature in black ink, appearing to read "Daniel Duer", written in a cursive style.

Daniel Duer

PA 2018 Final Report:

Bifenture EC 25 EPA Reg. No. 70506-227 and Bifenture 10 DF EPA Reg. No. 70506-57

Company was unable to provide amounts used or acreage treated. Reported 9,792 gallons of Bifenture EC used in PA under Section 18 and otherwise

No adverse effects or violations reported —

Sites to be Treated: Pome and Stone Fruit Orchards



**PennState**

**Fruit Research and Extension Center**

College of Agricultural Sciences  
The Pennsylvania State University  
P.O. Box 330, 290 University Drive  
Biglerville, PA 17307-0330

717-677-6116  
Fax: 717-677-4112  
[agsci.psu.edu/frec](http://agsci.psu.edu/frec)

**Date:** May 06, 2019

**From:** Greg Krawczyk, PSU Extension Tree Fruit Entomologist

**To:** Pennsylvania Department of Agriculture, Bureau of Plant Industry, Health and Safety Section

**Subject:** Support for the Section 18 Emergency Exemption registration for bifenthrin

To whom it may concern,

My name is Greg Krawczyk, and I am the PSU Extension Tree Fruit Entomologist working with the fruit industry across the State on Pennsylvania. Among others, one of my main responsibilities include the support of the fruit growers in their task to manage all kind of issues related to the management of insect pests attacking fruit. I am writing this letter to support the application by the Pennsylvania Department of Agriculture for the Section 18 Emergency Exemption registration for bifenthrin, an active ingredient of Brigade WSB Insecticide /miticide (from FMC Corp.) and Bifenture EC Insecticide and Bifenture 10DF Insecticide (both manufactured by United Phosphorus, Inc.).

Insecticide products containing bifenthrin are the top of the list of the most effective and useful insecticides to manage an invasive pest, brown marmorated stink bug (BMSB) *Halyomorpha halys* (Stal) (Hemiptera: Pentatomidae) affecting fruit and other crops across the entire Mid-Atlantic region. BMSB feeding on peach fruit results in gummosis (i.e. extrusion of a thick, translucent gel at injury sites on the surface) and sunken, misshapen areas on the fruit surface known as “catfacing”. Internally, BMSB causes discrete discolored, corky and/or hollow areas in peaches that may or may not correspond with surface injury and that may extend to the pit. In apples, BMSB feeding causes a range of surface injuries that may be associated with the time at which feeding occurs and/or the variety and that may progress as fruit mature. The most apparent external injury is manifest as shallow depressions with or without discoloration. Internally, apples show discrete areas of brown, corky flesh that may extend to the core.

Based on our previous research experience we learned products containing pyrethroid bifenthrin are the most effective and economically viable insecticides available to combat this pest. Unfortunately, the currently registered products containing bifenthrin do not have the BMSB on the label and are only available for the control of other pests on selected crops however not on apples and stone fruit. Our multiple laboratory bioassays and field research trials documented the exceptional direct and residual efficacy of bifenthrin containing products against BMSB adults and nymphs.



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Pennsylvania fruit growers are known for their stewardship of biotic and abiotic elements of the natural environment and acceptance of the principles of Integrated Pest Management (IPM) practices. The insecticides currently available to control various pests on fruit are not very effective against BMSB and frequently are required to be used multiple times to manage this pest. An addition of the bifenthrin to the assortment of available BMSB control tools combined with effective monitoring should actually help to reduce the overall number of insecticide applications (due to higher efficacy), improve fruit quality and provide positive input in the management of insecticide resistance. An addition of bifenthrin to the list of products available to manage BMSB adults and nymphs on apples and stone fruit will be very beneficial to all Pennsylvania fruit growers.

Please do not hesitate to contact me directly if I can provide any **additional** support for this application.

Sincerely,

Greg Krawczyk, Ph.D.  
Research Professor and Extension Tree Fruit Entomologist  
Pennsylvania State University  
Fruit Research and Extension Center  
290 University Drive, Biglerville, PA 17307  
Phone: 717-677-6116 ext.5  
*e-mail: [gxk13@psu.edu](mailto:gxk13@psu.edu)*



**UPL NA Inc.**  
Crystal Layton  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406  
Phone: (229) 583-3006

May 6, 2019

Daniel Holbrook Duer  
Pesticide Specialist  
Pennsylvania Department of Agriculture  
Bureau of Plant Industry  
2301 North Cameron Street  
Harrisburg, PA 17110

**RE: Section 18 Letter of Support for Bifenture EC and Bifenture 10DF Insecticides**

Dear Mr. Duer,

UPL NA Inc. (UPL NA) (formerly known as United Phosphorus, Inc.) fully supports the Section 18 emergency exemption for use of Bifenture EC and Bifenture 10DF Insecticides, containing the active ingredient bifenthrin for control of Brown Marmorated Stink Bug (*Halyomorpha halys*) on apples, peaches and nectarines in Pennsylvania (and other supporting States). The products we supply are:

- Bifenture EC – EPA Reg. No. 70506-57
- Bifenture 10DF – EPA Reg. No. 70506-227

UPL NA will be able to supply product to meet the market demand for 2019.

If you have any questions, please feel free to contact me directly at 229-583-3006 or [crystal.layton@upl-ltd.com](mailto:crystal.layton@upl-ltd.com). If you have technical questions about the product and control of Brown Marmorated Stink Bug, please contact Tony Estes at 864-202-7526 or [tony.estes@upl-ltd.com](mailto:tony.estes@upl-ltd.com).

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads 'Crystal Layton'.

Crystal Layton  
Regulatory Manager

Cc Tony Estes

## For distribution and use only in Pennsylvania under an emergency exemption authorized under Section 18 of FIFRA

All applicable directions, restrictions, and precautions on the EPA registered product labels as well as those on these directions for use must be followed. These directions for use must be in the possession of the user at the time of pesticide application.

**Products:** Bifenture® EC Agricultural Insecticide (EPA Reg. No. 70506-57)  
Bifenture® 10DF Insecticide/Miticide (EPA Reg. No. 70506-227)

**Firm Name:** United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

**Crop/Site/Commodity:** Apples, Peaches, Nectarines

**File Symbol:** 18-PA-04; 18-PA-05; 18-PA-06

**Target Pest/Problem:** Brown Marmorated Stink Bug (*Halyomorpha halys*)

**Dosage:** Apply 5.12 – 12.8 fl ozs (0.08-0.20 lbs ai) per acre of **Bifenture EC Agricultural Insecticide** (EPA Reg. No. 70506-57), **OR**  
Apply 12.8 – 32.0 ozs (0.08-0.20 lbs ai) per acre of **Bifenture 10DF Insecticide/Miticide** (EPA Reg. No. 70506-227)  
Use higher rates under heavy insect pressure.

**Dilution Rate:** **By Ground Only:** Apply as a dilute spray (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre).  
For best control, thorough coverage is necessary.

### Frequency/Timing of

**Applications:** Applications should be applied when populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.  
Do not apply more than 32 fl ozs (0.50 lbs ai) of **Bifenture EC Agricultural Insecticide** or 80 ozs (0.50 lbs ai) of **Bifenture 10DF Insecticide/Miticide** per acre per season.  
For all Bifenthrin products used, do not apply more than a total of 0.50 lbs ai/acre per season.  
Apply as necessary to maintain control using a minimum of 30-day spray intervals.  
Do not apply this product until after petal fall.  
Do not graze livestock in treated orchards or cut treated cover crops for feed.

**Restrictions:** This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the high mean water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed directly to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

**Restricted Entry**

**Interval (REI):** 12 hours

**Pre-Harvest Interval**

**(PHI):** 14 days

**Restricted Use Pesticide:** When used in Pennsylvania, applications can only be made by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators certification.

**This exemption is effective May 7, 2019 through October 15, 2019.**



**FMC Corporation**  
2929 Walnut Street  
Philadelphia, PA 19104  
USA

215.299.6000  
fmc.com

May 17, 2019

Daniel Holbrook Duer  
Pennsylvania Department of Agriculture  
Bureau of Plant Industry  
2301 North Cameron Street  
Harrisburg, PA 17110

RE: Section 18 Letter of Support

Dear Mr. Duer:

As the registrant for Brigade WSB insecticide/miticide (EPA Reg No. 279-3108), FMC fully supports the proposed recertification of a Section 18 emergency exemption use of this product in Pennsylvania on apple, peach, and nectarine to control the Brown Marmorated Stink Bug (*Halyomorpha halys*).

FMC is committed to working with IR-4 in their program to obtain Section 3 registrations for use of bifenthrin on pome and stone fruit. IR-4 conducted field magnitude of the residue trials on apple (PR 11016) and peach (PR 11017) in 2013 and submitted tolerance petitions for these new uses to US EPA in June 2016. An Agency decision on these uses was initially expected in September 2017 but due to the current registration review of the active ingredient bifenthrin the Agency has subsequently requested two extensions of the PRIA decision date. The current PRIA decision date for the IR-4 submission is now September 25, 2020.

Please contact me by telephone at 215-299-6717 or by email at [tim.formella@fmc.com](mailto:tim.formella@fmc.com) if you have any questions on this matter.

Sincerely,

A handwritten signature in blue ink that reads "Timothy M. Formella". The signature is written in a cursive, flowing style.

Timothy M. Formella  
Senior Product Registration Manager  
FMC Corporation



## RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certificate



### Section 18 EXEMPTION

FOR DISTRIBUTION  
AND USE ONLY IN  
PENNSYLVANIA

EPA File Symbols:

18-PA-\_\_\_ (apple),

18-PA-\_\_\_ (peach),

18-PA-\_\_\_ (nectarine)

EMERGENCY CALLS: 800-331-3148

**ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE REGISTERED  
PRODUCT LABEL FOR BRIGADE WSB (EPA REG. NO. 279-3108) ARE TO BE FOLLOWED**

**THESE DIRECTIONS FOR USE MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF  
PESTICIDE APPLICATION.**

**This exemption is effective from \_\_\_\_\_, 2019 through \_\_\_\_\_, 2019**

Crop	Pest Controlled	Rate of Application
Apples, Peaches, Nectarines	Brown Marmorated Stinkbug	12.8 - 32 oz/A (0.08 - 0.2 lb ai/acre)

Directions for Use: Application must be made post-bloom, by ground only as a dilute (minimum 200 gallons of finished spray per acre) or concentrate (minimum 50 gallons of finished spray per acre) in sufficient water to provide thorough coverage. Do not apply this product until after petal fall.

Restrictions: Do not apply more than 32 oz/acre (0.2 lb ai/acre) per application. Do not apply more than 80 oz/A (0.5 lb ai/acre) per year. Do not make applications less than 30 days apart. Do not graze livestock in treated areas. Do not apply within 14 days of harvest. Do not allow entry into treated areas for 12 hours following application.

Any adverse effects resulting from the use of Brigade WSB under this emergency exemption must be immediately reported to the Pennsylvania Department of Agriculture.



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

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## Conrath, Andrea B

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**From:** Duer, Daniel <daduer@pa.gov>  
**Sent:** Friday, May 17, 2019 2:21 PM  
**To:** Conrath, Andrea B  
**Subject:** RE: [External] RE: New Document for In-processing: PA Recert for Bifenthrin Use on Apple, Peach, Nectarine to Control BMSB  
**Attachments:** ATT00001.txt; 2019-04-03 PA - Sec 18 Re-Certification Letter of Support Brigade WSB for BMSB.pdf; 2019-05-17 Brigade WSB BMSB Sec 18 PA use directions.docx

Hi Andrea, here's FMC's info for 2018  
Brigade WSB Insecticide/Miticide EPA Reg. No. 279-3108

Total Formulated Product	Total Acres Treated	Total Pounds of A.I.
308 gal	62	30.8 lbs

I'll revise the initial letter with this information once UPL (hopefully) gets back to me

**Daniel Holbrook Duer** | Pesticide Specialist  
Pennsylvania Department of Agriculture  
Bureau of Plant Industry  
2301 North Cameron Street | Harrisburg PA 17110  
Phone: 717.772.5211 | Fax: 717.783.3275

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**From:** Conrath, Andrea B <Conrath.Andrea@epa.gov>  
**Sent:** Friday, May 17, 2019 1:46 PM  
**To:** Duer, Daniel <daduer@pa.gov>  
**Cc:** Brylewski, Leonard <lbrylewski@pa.gov>  
**Subject:** RE: [External] RE: New Document for In-processing: PA Recert for Bifenthrin Use on Apple, Peach, Nectarine to Control BMSB

That would be very helpful, thank you.

If it's any help in estimating, the acres treated for the past years were as follows:

2017 – 2,400  
2016 – 3,500  
2015 – 0  
2014 – 144  
2013 – 144  
2012 – 725

Please get back to me with the information as soon as you can. Also please confirm the products being requested (whether the FMC product included or not).

Thanks,  
Andrea